3rd International Conference on Advanced Engineering Materials and Technology (AEMT 2013)

May 11-12, 2013, Zhangjiajie, China

A) Background

We are looking forward to meet you at the beautiful city of Zhangjiajie on May 11th - 13th, 2013.ICAEMT 2013 is co-organized by Hebei United University. Korea Maritime University,Hong Kong Industrial Technology Research Centre., which is aiming at strengthening international academic exchange and cooperation,encouraging the interdisciplinary fusion and promoting the development of Advanced Engineering Materials and Technology.

http://www.icaemt.org

B) Paper refereeing and publication

All accepted papers will be published by ***Advanced Materials Research Journal*** (1022-6680),Indexed by **EI Compendex**and **Thomson ISI (ISTP).**.

Selected excellent papers will be published in international reputation journals

C) Important Dates

Paper submission due: **March 30, 2013**

Acceptance notification: **2-3 weeks after submission**

Table of contents

Periodical:
Advanced Materials Research
Volume:
Materials Processing and Manufacturing III

Papers published in this volume:

Paper Title:
Interface Microstructure and Mechanical Properties of Copper/Aluminum Composite Material

Periodical	Advanced Materials Research (Volumes 753 - 755)
Main Theme	Materials Processing and Manufacturing III
Edited by	Xiaoming Sang and Yun-Hae Kim
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Citation	Bao Yi Yu et al., 2013, Advanced Materials Research, 753-755, 207
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Authors	Bao Yi Yu, Qing Wang, Qiang Li, Yu Juan Wu, Yan Chen
Keywords	Cu/Al Composite, Interface, Microstructure, Peel Strength

Abstract

The composite was produced by pouring melt Al into solid Cu pipe. Microstructure, mechanical properties and Cu-Al composition distribution in Cu/Al composite interface were studied in the paper. The experimental results show that Cu and Al diffuse to each other, which the Cu/Al interface zone is formed. Moreover, there are lots of Cu-Al phase appearing in the Cu/Al interface zone. Furthermore, the influences of annealing temperature on the peal strength of Cu/Al interface were tested, in which the peel strength of the Cu/Al interface zone reaches the highest point to 15 MPa at 350℃ and then decreases with the annealing temperature increases. In addition, the width of the diffusing layer and the average grain size of the Cu/Al interface zone increase with the annealing temperature increases.